

PATENT COOPERATION TREATY

Eingegangen

22. Dez. 2003

PCT Keller & Partner AG

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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SUISSE

WRITTEN OPINION (PCT Rule 66)

Date of mailing
(day/month/year)

18.12.2003

Applicant's or agent's file reference
RS/sk-16071

REPLY DUE

within 3 month(s)
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International application No.
PCT/CH03/00203

International filing date (day/month/year)
28.03.2003

Priority date (day/month/year)
29.03.2002

International Patent Classification (IPC) or both national classification and IPC
H02M3/335

Applicant
ASCOM ENERGY SYSTEM AG

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 29.07.2004

FRIST NOTIERT

18.03.04 ps

Name and mailing address of the international preliminary examining authority:



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I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-22 as originally filed

Claims, Numbers

1-17 as originally filed

Drawings, Sheets

1/22-22/22 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1,2,5,6,9-11,14-17
Inventive step (IS)	Claims	1,2,5,6,9-11,14-17
Industrial applicability (IA)	Claims	

2. Citations and explanations**see separate sheet**

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D1: EP-A-1150417

The document D1 was not cited in the international search report. A copy of the document is appended hereto.

1. Lack of novelty

The present international application does not fulfill the requirements of Article 33(2) PCT because subject-matter of claims 1, 2, 5, 6, 9- 11, 14-17 is not new.

1.1 Document D1 (fig. 1) discloses:

a power converter for supplying an output power to a load (connected to the secondary winding (5) in parallel to the capacitor (7)), comprising:

- a switching device (MOSFET 4) having a switching input (MOSFET source), a switching output (MOSFET drain), and a control input (MOSFET gate) for enabling or disabling the switching device from conducting current from the switching input to the switching output and
- a network (1, 6, 7) in which the switching device input (s), the switching device output (d), and the load are connected together to form a circuit (4, 1, 6, 7)
- a bias winding (8) in the circuit for producing a bias voltage representative of the output power (see column 4, line 39-46), and
- a control circuit (10, 9) for determining the rate of change of the bias voltage (column 4, column 4, line 6-12, line 41-46),
- characterizing the rate of change (column 4, line 9, line 13, paragraph [0019]), and controlling the control input as a result of the characterization (paragraph [0017] [0019]).

Document D1 discloses all technical features of claim 1 and therefore its subject-matter can not be considered new in the sense of Article 33(2) PCT.

1.1.1 The same reasoning applies mutandis mutatis to relative method claim 15 and therefore its subject-matter is also not new (Article 33(2) PCT).

1.2 Document D1 discloses also a power input portion (3) and a power output portion (4,1,6, 7) for providing said output power, wherein said circuit (4, 1, 6, 7) is in said output portion.

Therefore subject-matter of claim 2 is also not new in the sense of Article 33(2) PCT.

1.3 The man skilled in the art understands that the same technical effects claimed in claim 5, claim 6, 9-11 and 14 are implicitly disclosed in D1.

Therefore subject-matter of claim 5, 6, 9-11, 14 is also not new in the sense of Article 33(2) PCT.

1.3.1 The same reasoning applies mutandis mutatis to claims 16, 17 and therefore their subject-matter is not new.

2. Clarity objections

2.1 The attention of the applicant is drawn to the fact that the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT), since the wording of the claims presently on file is not supported by the description, as their scope is broader than justified by the description and drawings.

In fact the following features which are not present in independent apparatus claim 1 seem to be essential for the definition of the invention (Rule 6.3 (a) PCT):

- a TRANSFORMER (see the whole description and all the drawings) which couples primary and secondary sides of the circuit,
- a SWITCH ON THE PRIMARY SIDE (see the whole description and drawings)
- a SWITCHING DEVICE AT THE SECONDARY SIDE of the converter (see the whole description and all the drawings), said switching device having a switching input, a switching output and a control input for enabling or disabling said switching device from conducting current from said switching input to said switching output.
- a bias winding BEING PART OF THE SAME TRANSFORMER (see in particular page 16,

line 4-5).

In particular the international examination authority believes that the transformer is an essential feature and that the sentence in description on page 16, lines 10, 11 is inconsistent with what is described as embodiment of the invention. The skilled person would not know how to provide a bias winding for producing a bias voltage representative of the output power in the switch mode power converter topologies of fig. 1-3.

The same reasoning applies to method claim 15 and obviously to all dependent claims.

2.2 Moreover the attention of the applicant is drawn to the fact that claim 3 is unclear (Article 6 PCT) because is not supported by the description, where there is no reference to the fact that the bias winding is in series with an inductor. Therefore also remaining dependent claims 4, 7, 8, 12, 13 are unclear.

Elena Marannino